

REMARKS

This paper is responsive to any paper(s) indicated above, and is responsive in any other manner indicated below.

PENDING CLAIMS

Claims 1-6 and 8-22 were pending, under consideration and subjected to examination in the Office Action. Appropriate claims have been amended, canceled and/or added (without prejudice or disclaimer) in order to adjust a clarity and/or focus of Applicant's claimed invention. That is, such changes are unrelated to any prior art or scope adjustment and are simply refocused claims in which Applicant is presently interested. At entry of this paper, Claims 1-6, 8-17, 19, 21 and 23-25 will be pending for further consideration and examination in the application.

REJECTION(S) UNDER 35 USC '102

All 35 USC '102 rejections are respectfully traversed. However, such rejections have been rendered obsolete by the present clarifying amendments to Applicant's claims, and accordingly, traversal arguments are not appropriate at this time. However, Applicant respectfully submits the following to preclude renewal of any such rejections against Applicant's clarified claims.

All descriptions of Applicant's disclosed and claimed invention, and all descriptions and rebuttal arguments regarding the applied prior art, as previously submitted by Applicant in any form, are repeated and incorporated hereat by reference. Further, all Office Action statements regarding the prior art rejections are

respectfully traversed. As additional arguments, Applicant respectfully submits the following.

In order to properly support a '102 anticipatory-type rejection, any applied art reference must disclose each and every limitation of any rejected claim. The applied art does not adequately support a '102 anticipatory-type rejection because, at minimum, such applied art does not disclose (or suggest) the following discussed limitations of Applicant's claims.

Applicant's disclosed and claimed invention is directed to car navigation system arrangements which improve an ease of use/understanding and improve safety by a user. More particularly, a car navigation system may be configured to display at least one of two-dimensional maps, three-dimensional maps and bird's-eye-view maps, from mapping information provided from a database. The present inventors found that such two-dimensional maps, three-dimensional maps and bird's-eye-view maps may contain too much information, such that, when a user (e.g., a driver) glances at the map display momentarily (i.e., for limited brief seconds) while driving, there may be insufficient time for the driver to completely digest/comprehend the complex two-dimensional maps, three-dimensional maps and bird's-eye-view maps. The driver's choices are to continue driving with an incomplete understanding, or put driving safety at risk by glancing at the map (rather than the road) for a longer period.

Applicant's disclosed and claimed invention improves ease of use/understanding and safety, by incorporating **a map summarizing unit configured to generate a summary road map having a reduced amount of information and having deformed roads more orthogonalized and/or linearized**

than the at least one of two-dimensional maps, three-dimensional maps and bird's-eye-view maps, and a display unit configured to display the summary road map together with a mark indicative of the vehicle position. Regarding the enhanced orthogonalization and/or linearization, a summarizing operation including at least one of an orthogonalizing and linearizing operation is applied over a main road including a running route. All of Applicant's independent claims (i.e., independent claims 1, 3 and 9) contain such summary map features/limitations. Further, new dependent claims 23-25 detail that a "deforming means" (see Applicant's specification page 30, lines 16+ and Applicant's FIG. 13) is for performing the at least one of the orthogonalizing and linearizing operation.

Ones of Applicant's drawing FIGS. are helpful in understanding of Applicant's summary map features/limitations. More particularly, Applicant's FIG. 8 (reproduced herewith) shows a display of a (complex) two-dimensional map, showing three alternative routes between a present position and a target position. (Note that the "two-dimensional" button at the bottom of such display is highlighted.)

FIG.8

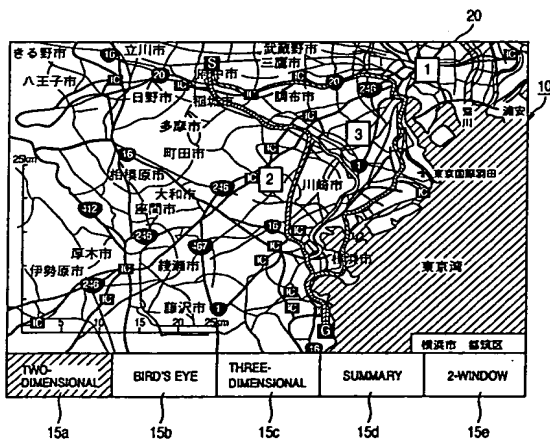
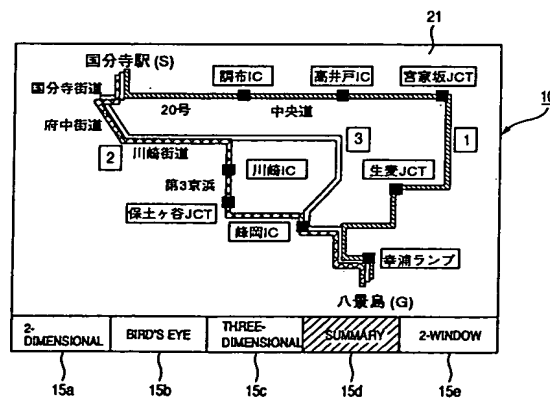


FIG.9

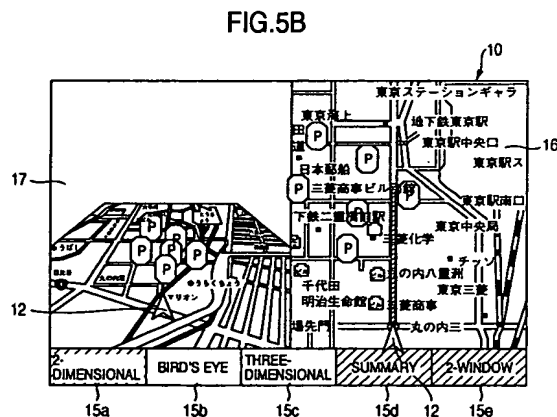


In contrast, Applicant's FIG. 9 (reproduced herewith) shows a display of a (simplistic) summary map, showing the three alternative routes between a present position and a target position in a more simplified form with a reduced amount of map information and with routes more orthogonalized and/or linearized. (Note that the "summary" button at the bottom of such display is highlighted.)

Each of Applicant's independent claims adds additional features to the basic summary feature. More particularly, as to Claim 1, an important feature of claim 1 is to search for land mark facilities (e.g., parking lots, stores) responsive to a facilities request in a land mark database, and to generate a summary road map by applying a summarizing operation over a main road including a running route and the searched land mark. This is supported by the description in paragraphs [0013] and [0069] in US Patent Application Publication No.2004-0236507 of this application.

For example, when a driver hopes to get a parking area, the car navigation system performs a summarizing processing to display a small (i.e., geographically small) parking area. In the present invention, land mark facilities determined by a user's facilities request is searched, and the

summarizing operation is applied to the searched land marks. As a result, even if the searched land marks includes a small parking area, such a small parking area can be displayed (refer to paragraph (00693 of the US Publication), e.g., by inserting an icon onto the map. Applicant's FIG. 5B for example, illustrates (in dual windows),



As to Claim 9, an important feature of Claim 9 is to generate a summary road map from the current vehicle position to a next turning corner on the searched running route, and to display the summary road map from the current vehicle position to the next turning corner with a mark of the current vehicle position. This is supported by paragraphs [0099], [0101], [0107] and Fig.12 of the US Publication '507. In the present invention, not only an intersection, but also a route from the present vehicle position to a next intersection can be displayed, and a driver can easily know the state of the running route up to the next intersection (refer to paragraphs [0099] and [0172]). Accordingly, the visual understanding of the user is improved, and the user can pass through a main

intersection smoothly (refer to paragraphs [0101], [0109], [0121] and others).

Applicant's FIG. 5B for example, illustrates (in dual windows), a two-dimensional view and a summary view of an impending intersection.

Dependent claims also add features. As to Claim 4, an important feature is to search for another route between the vehicle position or the departure position and the target position, and to display the searched another route by differing specialized (e.g., simplified broken) lines. This is supported in paragraph [0016] and Fig.9. As to claims 19 and 21 (and independent claim 9), such recite that the display unit is configured to display the summary road map **automatically responsive to a predetermined change in positioning of the vehicle** on the at least one of two-dimensional maps, three-dimensional maps and bird's-eye-view maps.

Turning now to rebuttal of the applied art, it is respectfully submitted that while Shimabara appears directed toward navigation/mapping arrangements, a main gist/focus of Shimabara is to adjust a overlaid "facility mark" (e.g., parking garage, gas station, restaurant, etc.) in correspondence with a scaling factor of the map image, to improve a visibility of a map image including a facility mark. Shimabara is deficient as a 102 (and a 103) reference, in that Shimabara nowhere discloses (or suggests) any arrangement which enhances orthogonalizing/linearizing of the roads of the map. Beyond reading Shimabara, an electronic search concerning the word fragments "linear" and "orthog" was performed on an electronic copy of Shimabara, producing zero occurrences of "linear" or "orthog".

As a result of all of the foregoing, it is respectfully submitted that the applied art would not support a '102 anticipatory-type rejection of Applicant's claims.

Accordingly, reconsideration and withdrawal of such '102 rejection, and express written allowance of all of the '102 rejected claims, are respectfully requested.

EXAMINER INVITED TO TELEPHONE

The Examiner is herein invited to telephone the undersigned attorneys at the local Washington, D.C. area telephone number of 703/312-6600 for discussing any Examiner's Amendments or other suggested actions for accelerating prosecution and moving the present application to allowance.

RESERVATION OF RIGHTS

It is respectfully submitted that any and all claim amendments and/or cancellations submitted within this paper and throughout prosecution of the present application are without prejudice or disclaimer. That is, any above statements, or any present amendment or cancellation of claims (all made without prejudice or disclaimer), should not be taken as an indication or admission that any objection/rejection was valid, or as a disclaimer of any scope or subject matter. Applicant respectfully reserves all rights to file subsequent related application(s) (including reissue applications) directed to any/all previously claimed limitations/features which have been subsequently amended or cancelled, or to any/all limitations/features not yet claimed, i.e., Applicant continues (indefinitely) to maintain no intention or desire to dedicate or surrender any limitations/features of subject matter of the present application to the public.

CONCLUSION

In view of the foregoing amendments and remarks, Applicant respectfully submits that the claims listed above as presently being under consideration in the application are now in condition for allowance.

To the extent necessary, Applicant petitions for an extension of time under 37 CFR '1.136. Authorization is herein given to charge any shortage in the fees, including extension of time fees and excess claim fees, to Deposit Account No. 01-2135 (Case No. 500.43576X00) and please credit any excess fees to such deposit account.

Based upon all of the foregoing, allowance of all presently-pending claims is respectfully requested.

Respectfully submitted,

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